



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,254	11/26/2003	David J. Yonce	279.628US1	6063
21186 7590 01/07/2008 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER OROPEZA, FRANCES P	
			ART UNIT 3766	PAPER NUMBER
			MAIL DATE 01/07/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/723,254	Applicant(s) YONCE ET AL.	
	Examiner Frances P. Oropeza	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/30/07 (RCE and Amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response

1. The Applicant amended independent claims 1 and 11 in the response filed 10/30/07, hence the rejection of record is withdrawn and a new rejection established in the subsequent paragraphs.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the added material which was not found in the original disclosure is in quotations:

- plurality of "short-term" time intervals (claim 1, line 14)
- the "particular short-term" time interval (claim 1, line 17), and
- as indexed by "the plurality of short-term time intervals (claim 1, lines 23-34).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. Claims 1-5, 7 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levine et al. (US 6748274) in view of Samuelsson et al. (US 7050857) and further in view of Conley et al. (US 6418340).

Levine et al. disclose a method and apparatus for displaying information comprising an implantable device (100) the implantable device comprising a first sensing channel (82 or 84) and a controller (60). The method and apparatus further comprise an external programmer (102) including a display (video display (214) and printer (236)) to show graphical data (waveform and histogram). The electrocardiogram data is compiled with respect to heart rate in a specific ranges/ is compiled over a specified long-term period of time. Events are time stamped/ marked (abstract; figures 2, 3, 5, 8-11B; col. 5 @ 33-45; col. 7 @ 7-16; col. 8 @ 29-33 and 48-52; col. 9 @ 1-12; col. 10 @ 60-62; col. 12 @ 53-54; col. 13 @ 59-61; col. 14 @ 16-18, 31-34; col. 15 @ 5-12; col. 16 @ 17-19).

As to claims 2 and 13, the representative electrocardiogram (IECG) is an average of a plurality of IECGs and is a function of time/ heart rate (col. 14 @ 31-34; col. 15 @ 5-13; col. 15 @ 67 – col. 16 @ 3).

As to claims 3 and 12, the representative electrocardiogram (IECG) is a single IECG and is a function of time/ heart rate (col. 12 @ 42-47; col. 14 @ 31-34; col. 15 @ 5-13).

As to claims 4 and 14, the representative electrocardiogram (IECG) is an intrinsic IECG and are a function of time/ heart rate (col. 13 @ 55-57; col. 14 @ 31-34; col. 15 @ 5-13).

As to claims 5 and 15, the representative electrocardiograms are evoked responses from the evoked response window, collected as paces, and are functions of time/ heart rate

(col. 4 @ 3-6; col. 7 @ 42; col. 15 @ 5-13; col. 15 @ - col. 16 @ 3).

As to claims 7 and 16, the display screen 9214) or the printer (236) display the representative electrocardiogram (fig. 5).

As to claim 9, the representative electrocardiograms may be continuous relative to time and period, and are derived as a function of time/ heart rate (col. 15 @ 5-13; col. 15 @ 67 – col. 16 @ 3).

As to claim 10, the controller maintains representative electrocardiograms being discarded (col. 14 @ 63-67).

As discussed in the previous eight paragraphs of this action, Levine et al. disclose the claimed invention except for the representative electrograms being displayed as an aggregate of representative electrograms in graphical form as indexed by the plurality of short-term time intervals.

Samuelsson et al. teach programmer display using representative electrograms being displayed as an aggregate of representative electrograms in graphical form as indexed by the plurality of short-term time intervals for the purpose of enabling comparison of different waveforms. It would have been obvious to one having ordinary skill in the art at the time of the invention to have electrograms being displayed as an aggregate of representative electrograms in graphical form as indexed by the plurality of short-term time intervals in the Levine et al. system in order to enable data comparison so the pacer data can be used to diagnose the condition of the patient, and based on the diagnosis, the pacer adapted to treat the condition of the patient (abstract; col. 1 @ 21-27; col. 7 @ 46-55).

As discussed in the previous ten paragraphs of this action, modified Levine et al. disclose the claimed invention except for the representative electrograms being derived from electrograms recorded when a measured heart rate is within a specified range.

Conley et al. teaches the display of cardiac data using user-specified episode criteria such as heart rate within a specified range for the purpose of enabling the physician to more effectively evaluate the patient's cardiac data. It would have been obvious to one having ordinary skill in the art at the time of the invention to have the representative electrograms derived from electrograms recorded when a measured heart rate is within a specified range in the modified Levine et al. system in order to present the cardiac arrhythmia data to the physician in a way that the data can be quickly assessed and the nature of the patient's cardiac arrhythmias quickly interpreted, hence providing for more effective and efficient programming of the patient's implanted cardiac device (abstract; col. 2 @ 6-24, 59-63; col. 3 @ 12-28; col. 8 @ 6-7; col. 9 @ 26-35).

5. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levine et al. (US 6748274) and Samuelsson et al. (US 7050857) and Conley (US 6418340) in view of Palmer et al. (US 5830150). As discussed in paragraph 4 of this action, modified Levine et al. disclose the claimed invention except for the graphic display having the magnitude of the electrocardiogram displayed in shading or color. Palmer et al. teach data display using a graphic display having the magnitude of the electrocardiogram displayed in shading or color for the purpose of highlighting changes in the condition of the patient. It would have been obvious to one having ordinary skill in the art at the time of the invention to have the magnitude of the

electrocardiogram displayed in shading or color in the modified Levine et al. system in order for the caregivers to become more easily aware of striking events and more subtle events, the caregiver's eyes being drawn by the colors to the variable at the time of its change so appropriate care can be provided for the patient's changing condition (col. 1 @ 53-55; col. 3 @ 6-18; col. 4 @ 1-26; col. 5 @ 1-23).

Specification

6. The amendment filed 10/30/07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows in quotations:

- plurality of "short-term" time intervals (claim 1, line 14)
- the "particular short-term" time interval (claim 1, line 17), and
- as indexed by "the plurality of short-term time intervals (claim 1, lines 23-34).

Applicant is required to cancel the new matter in the reply to this Office Action.

Statutory Basis

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fran Oropeza whose telephone number is (571) 272-4953. Fran's schedule typically is Monday and Tuesday 9AM-7PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl H. Layno can be reached on (571) 272-4949. Carl's schedule typically is Monday, Wednesday, Friday 9AM-5 PM EST; Tuesday, Thursday 9AM-3PM and 9PM-11PM EST. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communication and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frances P. Oropeza
Patent Examiner
Art Unit 3766

FPO
1/3/08

Carl H. Layno
CARL LAYNO
PRIMARY EXAMINER